School Physicians' Bulletin

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Getting Results in Mouth Hygiene

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It should be stated that in Cleveland, there has been a mouth hygiene program of some kind in the schools for twenty years.

The earliest efforts were directed toward the relief of pain for indigent children.

Then came the tooth brushing campaign as a panacea for the dental ills of all. Next, a so-called preventive program of care of first permanent molars for very young children, six and seven years. This was followed by the idea of diet to correct the dental ills. Each phase has had and still has, its enthusiastic supporters. The present attitude is that we must render dental service to all children who need it, we must teach cleanliness as a desirable social custom if of no other value, we must teach the children to use the best diet we know for the growth and development of normal teeth. With our lack of knowledge and funds, this means a long time program.

From 1920 to 1926, we developed a dental service program in the schools for the care of first permanent molars for six and seven-year-old children whose parents could not otherwise provide for the service. We operated 34 chairs with 17 dentists, 17 hygienists and 17 assistants, all full time. In addition, we made an annual examination of all school-age pupils with a staff of two dentists and three assistants.

With all this service, we were not able to care for the six and seven-year-old pupils with the methods employed. During the past few years, we have attempted to learn how to use our funds to obtain care for a greater number of pupils. Extraction service under anesthesia was our greatest problem. The filling service can be rendered in a school building without being a disturbing element; not so with extractions under a general anesthetic.

Everyone knows that many attempts have been made to persuade parents to provide private dental care for the children. The result is always the same. Only those parents who enjoy such care for themselves feel it sufficiently necessary for the child to pay for it.

Nurses have, in many places in connection with a generalized nursing program attempted to secure dental corrections. Some degree of success rewards her efforts according to the amount of time and effort she spends, the financial status of her school, etc. In a word, such efforts are not very successful for two reasons:

1. Lack of time on her part to devote to teeth alone, and
2. Lack of facilities for the middle classes. The dental profession of necessity asks fees within the ability of not more than 20% of the people to pay.

The most successful method yet developed in Cleveland is to have dentists make the examination and diagnosis of the mouth of each child. Next, the dentist, the dental hygienist and assistant all talk to the mothers of elementary children explaining to each mother the dental needs of *her* child, and securing her coöperation.

This is a program stressing teeth only. We succeed in getting 58 to 60% of the mothers to come to school and almost 100% of those who come are coöperative.

A vital factor in the success of this program is the fact that we have facilities available at a fee the parent can afford to pay. Like most cities, we were without adequate facilities until about three years ago when circumstances developed permitting the establishment of a private clinic, described in a recent issue of A. P. H. A. Journal for extraction of teeth of school-age pupils under anesthesia. After a year of demonstrated success in service and financially, another clinic was established and a hospital undertook a similar service. These private clinics so disturbed the private profession that, after many conferences and meetings, we now have four hospitals, each providing care for 5,000 cases per year of extraction of teeth for school-age children under anesthesia. Half on a pay basis ($1.75 per case), and half free; in addition, a tax-supported hospital will care for 2,500 cases free. We anticipate that the private dentists will care for approximately 5,000 cases at professional fees making a total of 27,500 cases that may be cared for this year. In a city with 166,000 school children, these facilities are ample.

Facilities must be available for a successful program but that is not all. A technic of working with parent and child is fully as important. Experience and common sense (sometimes called psychology) must be applied. We have learned that the younger the child, the more solicitous is the mother for her offspring. We take advantage of this interest.

Our technic is to *show* the mother the mouth conditions of her own child. In many cases, we have talked to the P. T. A. in preparation for the campaign, which is annual.

After gaining the mother's coöperation and explaining the clinical service where necessary, it is our duty to follow the case to a successful conclusion. That means intensive work on the cases that need it.

In 1930, we succeeded in securing the extraction of teeth for

4,791 pupils by the private dentists
16,336 pupils by the pay clinics, and
4,225 pupils by the free clinics, a total of 25,352.

To free these mouths of septic teeth, we feel is a definite accomplishment for the health of over 25,000 children; contributing to the health of the community.

When working with Junior High pupils, 12 to 16 years, we devote our attention to the child himself and not to the parent. The parent is a secondary consideration in most Junior High cases. There are those cases in upper elementary and lower Junior High that require considerable judgment and tact to get results. By results we mean to secure a clean, healthful mouth.

We have explained the facilities available for extractions. Our efforts today are to secure adequate filling service to care for the carious teeth of all school-age pupils at a fee the people can afford to pay.

Summary—To secure results in mouth hygiene:

1. We must see that adequate facilities for service at moderate fees are available and explained to parents.
2. We must use tact and judgment and common sense in securing the coöperation of both parent and child.
3. We must conduct intensive campaigns on the one subject, teeth.
4. We may justly use a private agency when necessary to secure the establishment of permanent service in the community's recognized institutions.

Model Program for Crippled Children

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Director Medical Inspection, Public Schools of Jersey City, N. J.

Read before American Association of School Physicians Convention, Montreal, Canada, September 14, 1931

Our new school for crippled children is of white pressed brick, with a pleasing facade on both the Boulevard and Bergen Avenue. The building is 165 feet long and 84 feet deep. It rises to a height of five stories and is of absolutely fireproof construction throughout. The style is Gothic modified by Egyptian influence.

On the Boulevard side a porte cochere covers the front entrance, so that the busses may load and unload under cover. The children, upon entering the school find themselves in a spacious hall, on either side of which the elevators are located. Two elevators of good capacity transport the pupils to the various floors. These elevators will have both manual and automatic control.

At the north end of the ground floor are two manual training shops. On the south end are located the medical and dental rooms. The medical suite consists of six rooms, which include a waiting room, doctor's office,

dressing room, plaster room, treatment room and utility room. The dental suite contains a waiting room and dental room.

An auditorium adequate in size for the needs of the school is also found on this floor. This auditorium has a stage about 15 feet by 20 feet, which will be electrically equipped, including foot lights. Two good sized anterooms are found, one on each side of the stage.

On this floor are found the janitor's room and other accessory rooms necessary for servicing the building. Other rooms on this floor are for storing wheel chairs, a general storage and a cleaners' room.

The second floor contains six classrooms with clothing rooms. Each classroom seats sixteen children, thus keeping the seating within legal state requirements. In the center of the Boulevard front are located the clerk's office and the principal's office. Other rooms found on this floor include a teachers' room and three store rooms.

The third floor contains five classrooms seating sixteen pupils each, with clothing rooms. A room at the northeast corner is specially fitted up for instruction in watchmaking. This vocational subject is found well suited to the needs and abilities of crippled children. It has been a very popular and a very satisfactory subject, and is a unique feature of the work.

A good sized library occupies the center of the Boulevard front.

On Bergen Avenue side of this floor is located the regular gymnasium. Just north of this is a smaller room which will be used as a corrective gymnasium for the correction or improvement of certain physical conditions. Adjoining the gymnasium on the south is found the shower room. A special gymnasium store room, a regular store room, and a teachers' room occupy the remaining space of this floor.

The fourth floor contains five classrooms with sixteen seats each and special rooms for sewing and domestic science. On the Bergen Avenue side is found a spacious dining room, on the north of which the kitchen, pantry and store room are located.

A store room and a teachers' room occupy the rest of the space on this floor.

The fifth or top floor contains a classroom for first year pupils and a kindergarten room with clothing rooms. A large sleeping room is located on the Bergen Avenue side. Space is provided on the roof which forms part of this floor for exercise and recreation in the open air. Three small store rooms complete the equipment of this floor.

Two toilets are located on each floor, except the first, where a toilet for boys is adjacent to the shops. Drinking fountains are located at the north and south end of each floor.

The desks and seats used in this building are of a type developed particularly for crippled children. In all rooms above the kindergarten and first year rooms, fixed furniture has been installed. The desk is adjustable for height. The seats are adjustable for height. They have also

adjustable backs, something like the back of a morris chair, and adjustable leg supports which can be used when needed. The seats are mounted on a swivel joint, so that the seat may be turned to facilitate getting into and out of the seat.

The Kindergarten is equipped with regular Kindergarten chairs and tables. It also has a full supply of Kindergarten equipment, such as is found in any modern up-to-date Kindergarten.

The first year room is equipped with movable furniture of the two-piece unit type. This means a table and a chair for each child. Three sizes are provided to care for various heights of pupils.

The heating is provided by the heating plant of the Henry Snyder Junior High School. This makes possible the use of the space ordinarily devoted to a heating plant for purposes of instruction. The ventilation is of the unit type, each room having its own ventilating fan operated by separate motors.

Ramps lead from the second floor to the playgrounds on the Bergen Avenue side. Ramps also provide access to the stage from the auditorium floor.

The floor is of the non-slip type, so that crutches, canes and feet may always have a firm hold on the floor. This means nearly a total absence of danger from injury due to slipping and falling.

Schools for crippled children are of two types, the one story type and the several story type with elevators. Jersey City's new school is the latter type. The reason for choosing this type is that such a type means less walking for the children, owing to the shorter length of the halls. Vertical travel is by means of elevators, which calls for no expenditure of energy on the part of the children.

Dr. James A. Nugent, Superintendent of Schools, is deeply interested in the providing of the best conditions for these crippled children. Every detail of construction and equipment has been carefully considered by him so that the building might stand in the front rank of schools for the physically handicapped.

Constructed from the very beginning to provide every facility and convenience for those who would have difficulty in using a building regularly equipped for normal children.

Every child admitted to the school is thoroughly examined by the orthopedic surgeon assigned to the school. Their condition is carefully noted and individual provision is made for each particular case. If appliances are needed, they are prescribed and parents are assisted in securing them.

Medical treatment has been supplemented by corrective gymnastics under the supervision of the school physician, with the assistance of the instructor of physical education.

On the vocational side, the boys are given special manual training work and the girls, instruction in sewing and cooking. Recently a class in

watchmaking has been formed. They enjoy games of all kinds, including baseball and football.

There is a genuine spirit of coöperation, as the more physically handicapped child is helped by those more fortunate. Several have graduated and continued their courses in the Junior High and the High Schools.

The ultimate aim of this care of the crippled child in New Jersey, as is elsewhere, is to equip these children to take care of themselves as adults. This means that the vocational field must be carefully surveyed to determine those occupations in which cripples can be reasonably expected to succeed. All care of the body and the mind is rendered far less valuable when the child finds no way to use his ability. The Rotary Club and the Elks Club of Jersey City are especially interested in the crippled child and are now making vigorous efforts to provide chances for these children in the business and industrial world.

In the treatment of the pupils at our school for cripples, the following electric treatment is used, diathermy, hydrotherapy, heliotherapy, quartz light, infra red ray, faradic current, galvanic current, sinusoidal current, electic cabinets, bakes and lights employed to produce heat and sweating of a part for relieving pain and inflammation, occupational therapy, medical gymnastics, two carbon lights for treatment of eight patients, and two mercury lights.

The Jersey City School for Crippled Children is equipped with a Solarium where eight patients may receive treatment at one time. The carbon arc lamps are used in this solarium.

The Physiotherapy department is equipped with tonic X-ray and fleuroscope machines.

The dental clinic is equipped with an X-ray machine, thus making it possible for the crippled patients requiring X-rays (for dental work) to have same taken without leaving the building.

NEWS ITEMS

Dr. William P. Brown, former Superintendent of the Tuberculosis Hospital in Rensselaer County, New York, has recently been appointed an assistant in the Medical Inspection Bureau in the State Education Department. After spending several months with the State Health Department in its Field Clinics, the two Departments will adopt a coöperative plan for the consideration of Childhood Tuberculosis.

The New York State Department of Health has recently published a twelve page handbook on "A Plan for a Coöperative Effort in a Measles Epidemic." The foreword, written by Commissioner Parran, says: "At least ninety per cent of the responsibility for the spread and the control of measles is in the hands of parents. One selfish, careless, wilful or ignorant parent can undo the painstaking efforts of every one else in the community, so far as the general spread of measles is concerned. Every child under five years of age contracting measles is liable to pneumonia which in turn results in high mortality."

Poliomyelitis

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In speaking on the subject of Poliomyelitis, I must regret, at the very onset, to admit our ignorance of the most important facts concerning this disease. Frankly, I do not know the cause of the disease, how it is conveyed from one patient to another. I cannot always recognize it, do not know how it can be prevented or successfully treated, and I do not know that anyone can, at the present time, supply this knowledge.

It is only within recent years that Poliomyelitis has assumed such great importance. Previous to the present century, it was regarded as a medical curiosity, with practically no suspicion of its being an infectious disease. However, in 1906, an epidemic occurred in Sweden, followed in a couple of years by one in Vermont, and since then, we have had outbreaks all over the world, including the great one in New York, in 1916, with 20,000 cases. By this time, of course, it was recognized that it was a really infectious disease, and it had been shown that it could be inoculated in monkeys and its course studied in these animals. Why the disease acquired greater virulence in this century and became seriously epidemic is one of its many mysteries. Unfortunately, it does not yet show signs of subsiding.

During the past twenty-five years, an incalculable amount of medical research has been concentrated on the disease, some of the greatest minds in medicine have devoted their whole time to its investigation, enormous sums of money have been spent on the search for a cause or a remedy, but, as I said in the beginning, we are still ignorant of many vital facts concerning it.

However, through clinical observation and animal experimentation, certain facts have been collected which I might briefly note.

First, it is essentially a seasonal disease, so that its course in each outbreak may be prophesied. Although scattered cases occur throughout the year, all the regular outbreaks in North America begin toward the end of July, increase through August, culminate about the first week in September, and gradually die away as colder weather comes on. I am pleased to report of the present small outbreak in this city of Montreal—some 250 cases—that it also seemed to culminate at the first of September, and, for the past ten days, the cases have been getting decidedly fewer. Of course, in the Antipodes, the seasons are reversed, and the outbreaks culminate the first of February. Why this regular seasonal regularity occurs we have no satisfactory explanation, and personally I feel that when we can explain it, we will have gone far towards solving the mystery of the disease.

Next, as to age, it is essentially a disease of young children. In any large body of statistics, the bulk of the cases are in children between

the ages of one and three. In epidemics, the average age is always a little higher, about four to five years; in other words, the great majority of cases are in pre-school children. Of course, everyone knows that it does occur in older children and even in young adults, but the broad fact remains that the greatest danger is to children between one and five years of age.

Next, as to the prognosis, the average mortality is about 10%; like all diseases, it becomes higher and sometimes has reached 40%. It is one of the few encouraging facts about recent outbreaks, during the last year or two, that the mortality has tended to be lower and the paralysis less extensive and complete, as if the disease were actually losing its virulence; for example, in Montreal this year, to date, the mortality has only been 6%. The fatal cases almost invariably die on the fourth or fifth day of the disease through involvement of the vital centres in the medulla.

(Series of lantern slides shown to illustrate the changes seen in the spinal cord of patients dying at this time, showing the primary involvement of the blood-vessels and the absolute destruction and removal of the nerve-cells at this early date.)

From these observations, it must be obvious to all that any treatment to be of any value whatever must be instituted before this time, that is, before the fourth or fifth day of symptoms when the destruction of the nerve-cells is already complete. In other words, we must give treatment before paralysis occurs, as we say, in the pre-paralytic stage. The only treatment so far which has met any general recognition is the use of blood-serum from convalescent patients. In monkeys it is found that this neutralizes the virus and, if given early, will absolutely save the monkey from a fatal dose of the virus. Those who have had the greatest opportunities of judging of its use in epidemics are most enthusiastic as to the effects if it is given in the pre-paralytic stage

How then can we recognize the disease before paralysis occurs? Many complicated lists of symptoms and signs have been published, but from a practical standpoint, it all comes down to three things, namely:

1. An unexplained fever occurring in a child of the susceptible age during an outbreak or at the season when the disease may be expected.

2. A characteristic rigidity of the neck and spine so that the child cannot put the chin on the chest, or, when sitting, put the head between the knees. This is the most constant of all signs and is practically invariably present.

3. Changes in the cerebro-spinal fluid obtained by lumbar puncture, especially that the cells per cubic centimeter are increased, giving 50-500 cells instead of the normal 6 or 8.

It is on these three points alone that diagnosis is made. Other symptoms, such as vomiting, headache, drowsiness, etc., are of interest, but are common to many conditions.

A question of interest to this assembly, and one which has aroused

more bitter discussion than any other, is whether or not the schools should be closed during an outbreak of poliomyelitis. It is of course obvious that the answer must depend on the conditions present. In the case of a country school, serving a scattered countryside, the occurrence, for the first time, of a case of poliomyelitis among the scholars would, of course, mean the closing of the school immediately until the menace was past. In the case of a large town or city, the answer is not so simple. In a large city like Montreal, if the schools were to be closed if poliomyelitis were present in the city, they would never be opened in September or October. Again, the closing of the schools of a large city means the disruption of the whole regular, organized social life of the city, leaving over a hundred thousand children without regular employment or supervision, to run the streets, assemble in public squares and playgrounds. Except in cases of great emergency or serious epidemic, naturally the health authorities hesitate to use so drastic an action. In Montreal, during the present small outbreak, the health authorities, realizing the small number of cases in proportion to the total population, considering that practically none of the cases were children of school age and that the time of year indicated the probable dying-out of the outbreak, decided to open the schools as usual, and the result seems to have justified their action.

A few days ago, the committee in charge of a large private school in this city asked me whether, in my opinion, the school should be opened. My reply was that since the Health Board of the city, who were men of recognized ability and experience, having every facility at their hand to know all the exact facts of the outbreak, had decided to open the public schools, the private schools could not do better than accept their ruling. I repeat this to illustrate the final point I wish to emphasize, that, in the struggle against any specific infectious disease in the present complicated civilization, it is only by organized effort that we can hope to accomplish anything. It is the duty then of every citizen and especially every physician to support, in every way in their power, the constituted health authorities of their community.

A STUDY OF THE PROBLEM CHILD IN SCHOOL

Dr. Frederick L. Patry, psychiatrist of the New York State Department of Education, in the *New York State Journal of Medicine* for July 1, 1931, has outlined methods of examining children who present school problems. The examiner studies the child's heredity, developmental data, his school record, facts of parental management and facts concerning physical status. The mental examination includes intelligence tests and psychiatric study. The economic and social conditions of the family are especially considered.

Dr. Patry's outline affords an excellent method of obtaining the necessary facts about the problem child.

GLANDS AND JUVENILE DELINQUENCY

A recent newspaper clipping comes to hand with the statement that doctors have attributed the cause of at least 20 per cent of the cases of juvenile delinquency to disorders of the glands of internal secretion. Statements of this kind are appearing from time to time in the press, and in fact scientific articles occasionally make similar claims.

It is very doubtful if these claims can be substantiated at the present time. Glands play a very definite part in body growth and in various other functions of the body. Lack of activity of the thyroid gland in children brings about mental dullness and cretinism. With some glandular disturbances there is an increased desire for sweets, which has resulted in the appropriation of candy by children with such disorders.

This is a far cry from attributing juvenile delinquency and crime to disorders of the glands. Generally, the causes are very evident and close at hand. Delinquency may be due to neglect, bad homes, improper school management and at times to inherent mental instability or mental defect. Criminal careers result when these bad situations of childhood are continued into adult life While science in the future may finally establish a relationship between the glands of internal secretion and criminal conduct in a few cases, the causes of juvenile delinquency and crime are so evident as a rule that there is no need to search for an obscure origin in body chemistry.—*Mental Hygiene News,* October, 1931.

NORMAL SCHOOLS GIVE COURSES IN MENTAL HYGIENE

A survey of courses in mental hygiene in teacher-training institutions, as reported in the April, 1931, number of *Mental Hygiene,* indicates that 21.7 per cent of the 239 institutions heard from give such courses, although most of these courses are optional as yet. The report indicates that much of this instruction deals with the principles of mental hygiene, and tends to stress the normal rather than the abnormal.

OYSTERS

Oysters, along with many other kinds of food, have been the subject of considerable nutrition research work, the result of which has been to indicate that oysters should be given more consideration as an article of diet because of their food value.

Oysters contain good quality protein which makes them acceptable as a change for steak, eggs, and other similar protein foods. They are rich in iron, an essential mineral needed in the diet. Nutrition research now shows that this iron is valuable in preventing anemia since oysters contain copper also, small quantities of which are essential to the fixation of iron in the blood. The iodine content of oysters is vastly higher than that of other fresh foods included in the normal diet. A more general use of oysters would therefore be beneficial in goiter prevention. Oysters also contain vitamins A, C, and D. When eaten raw, the full content of vitamin C is retained.—*Mississippi State Board of Health.*

Why the School Physician Should be Interested in the Washrooms

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Cleanliness Institute, New York City

Do children need to wash their hands during the school day?

"Of course!" any school physician to whom that question might be put would answer promptly. "Thorough handwashing upon two occasions—after toilet and before eating—constitutes a minimum health precaution. Besides, it is a well-bred habit that should be insisted upon by teachers who are trying to train children for gracious, wholesome living."

And quite likely that same school physician goes on about his work, never questioning how much handwashing is actually taking place among the school children under his supervision. Frequent ablutions are a matter of course in a doctor's existence, and he is a busy person. With so many duties heaped upon him to be done in the limited time he can spend in the schools, seldom is it possible for him to have first-hand knowledge of conditions existing in the washrooms. Perhaps it is natural for him to assume that the cleanliness rules are being practiced.

Some states, however, charge the school physician with responsibility for sanitary inspection. When the doctor does visit the washrooms he is often appalled at conditions he finds there.

Why? The findings of a school handwashing study carried on in 145 schools of fifteen states by Cleanliness Institute indicate reasons enough for concern. Everywhere physicians gave wholehearted coöperation while facts were being gathered, and they have expressed deep interest in the report. For all practical purposes, it pictures nation-wide conditions, for the states are as widely separated geographically as Massachusetts and Texas. The schools visited are of every size and type, and their 124,000 students include every grade from kindergarten through college classes.

Among them, fewer than one school in three provide all three of the essentials to handwashing—water, soap, and drying equipment—for general use. To be sure, some schools without soap supply towels, while others without towels have soap. Sometimes special rooms such as the kindergarten, manual training department, and teachers' room, have washing equipment that is not available to most of the children in the school. But only 31 per cent were found to have water, soap and towels within reach of all the children.

The figure does not mean, however, that nearly one-third of the school children in the country are washing their hands satisfactorily. Indeed, no! While a number of schools have worked out splendid systems for the practice of the cleanliness health rules, generally even in those schools which have facilities, it is overlooked. The reasons are various—and sometimes multiple. Usually they have to do chiefly with the inadequacy of supplies or equipment—too few lavatories and sinks for all the children

to wash, or soap and towel supplies that are exhausted before the day is over—or else teachers have not arranged a time for washing to take place, and have not supplied the needed supervision.

There are school physicians who have undertaken the problem of inadequate facilities to good effect. Dr. C. W. Polk, director of child hygiene for the Shelby County Health Department in Tennessee, has launched a plan for the construction in high school manual training departments of long troughs with perforated water pipes above them, to permit groups of children to wash at the same time under running water. As fast as it is installed, the equipment, plus towels and soap, makes clean hands possible for children in the schools of the county.

Ordinarily, however, the doctor's mission is to impress administrators and teachers with the acute need for day-by-day practice of personal cleanliness habits, particularly the washing of hands.

Ray Lyman Wilbur, M.D., President of Leland Stanford University and Secretary of the Interior, in an address delivered before a convention of public health nurses said: "If I had to name one health measure which would be most effective in the control of the great transmissible diseases, I would say that a thorough washing of the hands, at least each time before food was taken, would be the most effective."

Researches made by Cleanliness Institute have seemed to prove the essential soundness of Dr. Wilbur's opinion. In 1925, in the death registration area of the continental United States, communicable diseases caused 270,786 deaths. The figure is obtained from the 1925 mortality statistics of the United States Bureau of Census (Part I, pp. 27-29). Of these deaths, 248,981, or 91.94 per cent, were caused by the entry into the body through the mouth and nose of the causative agents involved. As a basis for computing the percentage, the classification of communicable diseases (as regards entrance of the causative organisms into the body) made by the Hygiene Laboratory of the United States Public Health Service, under the direction of Surgeon General H. S. Cumming, M.D. (dated August 22, 1928), was used.

If 92 per cent of the deaths from communicable diseases are caused by micro-organisms which use the mouth and nose gateways, it is reasonable to suppose that the same mode of ingress is used by at least as high a percentage of those transmissible agents which, though not causing fatal illness, do incalculable damage to school children's general health and attendance records.

There is no known way of finding out how many of the micro-organisms which enter a child's mouth and nose are carried to the gates by his hands. But considering how busy and explorational are the hands of growing children, and how many objects about the schoolroom—books and pencils, chalk and erasers, maps, globes, desks, and doorknobs—are handled alike by children who are well and children who are afflicted with head colds,

or more serious ailments, handwashing should surely be one of the first interests of the school physician.

The report of Cleanliness Institute's study—available to any professional person who requests it—gives a number of practical suggestions for bettering school handwashing. They are too long to repeat in full here, but a few of the fundamental ideas are:

Only visible dirt is generally considered by teachers. They must realize that hands which look clean may require washing—that biological cleanliness is the end sought.

Water (preferably warm), soap, and some form of drying equipment are necessary for handwashing and if they are not provided, some measure must be taken to secure them.

Often inadequate equipment may be made to wash all hands in school by "staggering" the recess and luncheon periods and supervising the group handwashing process to make it efficient and speedy.

Arrangement of towels and soap in relation to the water supply, and the washing equipment in relation to classrooms, lunchrooms, and toilet rooms, is important if best service is to be had.

Since the health of a child depends upon what he does, rather than upon what he knows, the school program should include, instead of precept alone, the actual *practice* of handwashing.

A QUESTION AND ANSWER DEPARTMENT

Edited by
DR. HENRY H. BRINKERHOFF
of the
Board of Education, Jersey City, N. J.,
will be maintained
Send your questions to him
Other special departments will be later organized

FIELD NEWS

Many members are doing things that would be of special interest and assistance to readers of the BULLETIN. Write them briefly and send to the Business Manager.

PERSONAL NEWS

Let our members and readers have Personal Items of your recognition, honors received, addresses given, special courses taken, etc.

Send them to the Business Manager.

ABSTRACTED ARTICLES

All of us read articles that would be of great interest to school physicians. Briefly abstract them, credit them to the proper publication and sent them to the Business Manager.

The Health of the Handicapped Child

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While it is true that every child with defects uncorrected, or with unfavorable home conditions is a handicapped child, the term "Handicapped Child" is usually reserved for children who are at a special disadvantage on account of major defects of vision, hearing, or speech, or because of some crippling condition of the limbs. Children with chronic diseases of heart or lungs are also very properly included in this category.

The problem of the crippled child has been listed under four main divisions: "first, the locating of all cripples immediately on the onslaught of their physical handicap; second, proper medical and surgical treatment; third, specialized education and vocational training; fourth, placement in useful and adapted employment." The phase of the problem which we wish to discuss is largely covered by the second division, "proper medical and surgical care."

In the Los Angeles City Schools the first step in the medical care of the handicapped child is the routine examination by the school physician of all such children. It is our policy to examine these children at the first of the school year so that any remediable defects may be detected.

It is obviously doubly important that a child already handicapped by a major defect should not be further incapacitated by some other unrelated and remediable condition. Consequently every effort is made to bring the physically handicapped child to the highest physical standard which is possible in the individual case.

In our classes for handicapped children there are two divisions into which they may be divided from the point of view of their medical care. First there are those children who owing to the intelligence, coöperation and patience of their parents are receiving every possible aid which modern science can provide. These children are not necessarily from the wealthiest homes but they are usually from the homes of the rich and the poor. The rich can afford the latest and the best over long periods of time. The poor have full confidence in the County or State organization which is caring for them and are well taken care of. With these children the School Health Department has very little to do beyond coöperating with the Orthopedic Hospital or the private physician to see that appointments are kept.

On the other hand there is a large group of children, especially in the Crippled Classes, whose parents have become discouraged or whose finances have become exhausted or who on account of wrong advice have not gone ahead with the treatment which is necessary to the amelioration of the handicapped condition. These children and their parents are referred to our orthopedic or other specialists and the best possible course

for the child outlined, and in very many cases children who had stopped treatments and who were lapsing into greater and greater deformity or helplessness, are encouraged and once more started on the up grade which in many cases results in a much greater personal happiness and efficiency. Children who have become resigned to a wheel chair for life have been stimulated to carry through with the long and tedious treatments, frequently involving operations, and instead of becoming hopeless cripples have become useful members of society.

At the present time the chief service for handicapped children of a remediable or corrective nature which is carried on by the School Health Department, is the work of the Corrective Physical Education Section which conducts classes for the crippled children. This work is carried on with special view to the building up of weakened muscles and the overcoming of deformities. The classes are in charge of a specially trained corrective teacher who works under the supervision of an orthopedic specialist.

Illness as a Cause of Absence

WILLIAM L. GOULD, M.D.

Medical Supervisor of Schools, Albany, N. Y.

The number of absences for all purposes in the entire school system during the year 1930-1931 was 177,205 or 7% of the total attendance. 87,323 or 49.2% of this number were due to illness. 3.1% is the percentage of the total number of school days lost for illness. We found that one-half of all the absences due to illness was due to the common cold. In other words, one-half the number of school days lost for absence is due to illness and one-half the number of days lost for illness is due to the common cold.

When we realize that the cold is a preventable condition, we can appreciate the economic importance of undertaking preventive health measures. The State of New York allows the local Board of Education from thirty-four to fifty-four cents a day for each pupil's attendance, depending upon whether the pupil is in the elementary school or in the secondary school. As a result of 87,323 absences because of illness, our local Board of Education received $33,000 less in State aid for the year than they would have received if the pupils had been present. This would apply to any community that receives State or other aid on the basis of pupil attendance. The importance of the loss of 87,323 days in education, itself, may be appreciated.

It was noted that from the opening of school in September 1930 to January 1, 1931 illness caused 37.4% of the total number of absences and that from January to June 1931 illness caused 61% of the total number of absences; the average for the year was 49.2%. Illness caused

23.2% more absences from January to June than from September to January. Out of 49.2% of absences due to illness, 41.2% was in the grades, .5% in the Industrial High School, 3.9% in the Hackett Junior High School, and 3.6% in the Albany High School. Inasmuch as the absences due to illness are computed in proportion to the general attendance, we should remember that in all of these computations there is one important factor, that is, the general excellence or poorness of attendance in the school system. Each community has its own attendance record.

It was observed that the schools in the cosmopolitan and working class sections of the city had a lower percentage of absence due to illness than did the schools in the residential sections. It cannot be said that pupils in the poorer sections are healthier and those in the better districts less healthy. There may be two causes. Either the pupils in the poorer sections of the city are more exposed to various conditions, thereby acquiring immunity to disease, or the pupils in the better districts are watched more carefully and are kept out of school for lesser ailments. It would be interesting to note where the routine examinations disclosed more defects and where the defects are taken care of and placed under treatment. This will be shown in a subsequent article.

LOS ANGELES TEACHERS HEALTH INSTITUTE

The Los Angeles Teachers Association will hold its Annual Health Institute on December 14, 15 and 16.

Dr. Howe, Secretary-Treasurer of the American Association of School Physicians, will be one of the speakers. The subjects to be presented by him are:

"What should Health Education mean to a School Health Program."

"What are some of the most important duties of the School Health Teacher."

"What should be done to improve the health of our teachers."

"Health Centers of Teachers and Pupils."

Dr. Howe has also accepted invitations to address teachers at Fresno, Long Beach and other places.

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